

AMENDED CLAIMS

1. Solid pharmaceutical preparation comprising at least one at least partially charged active substance, which active substance is present in the form of a nanosol in which the active substance is bonded to an oppositely charged chitosan derivative, said solid pharmaceutical preparation being produced by a process, wherein

- a chitosan derivative is selected according to the type and relative number of its charged groups and in coordination with the type and relative number of the charged groups of the active substance such that at a certain pH value an isoionic state or charge equalization between active substance and carrier can be achieved in the preparation,
- an aqueous sol containing the active substance is prepared from the chitosan derivative,
- the pH value of the aqueous sol is adjusted such that an isoionic state results, possibly with colloidal or nano-scale active substance particles precipitating, and
- the thus-adjusted aqueous sol is dried.

2. Solid pharmaceutical preparation according to Claim 1, characterized in that the active substance possesses a positive charge and is bonded to a zwitterionic, acidic chitosan derivative.

3. Solid pharmaceutical preparation according to Claim 1, characterized in that the active substance possesses a negative charge and is bonded to a basic chitosan derivative.

Sub 02 4. Solid pharmaceutical preparation according to any one of the preceding claims, characterized in that the active substance and the chitosan derivative are present in the nanosol in almost isoionic state.

5. Solid pharmaceutical preparation according to any one of the preceding claims, characterized in that the active substance is present in the nanosol in colloidal or in nanoparticulate form.

6. Solid pharmaceutical preparation according to any one of the preceding claims, characterized in that the active substance is poorly soluble.

7. Solid pharmaceutical preparation according to any one of the preceding claims, characterized in that it contains a further polymeric carrier substance apart from the chitosan derivative.

8. Use of a pharmaceutical preparation according to any one of the preceding claims for the production of a medicinal product.

9. Use of a pharmaceutical preparation according to Claim 8 for the production of a medicinal product for peroral application.

Sub 02 10. Use of a pharmaceutical preparation according to any one of Claims 8 or 9 for the production of a medicinal product that is administered as a powder, granulate, tablet or capsule.

11. Use of a pharmaceutical preparation according to any one of Claims 8 to 10 for the production of a medicinal product which, for the purpose of administration, is dissolved or redispersed in a liquid.

12. Use of a pharmaceutical preparation according to any one of Claims 8 to 11, for the production of a medicinal product having controlled active substance release.

13. Use of a pharmaceutical preparation according to any one of Claims 1 to 7 for the production of a diagnostic agent.

14. Process for the production of a pharmaceutical preparation according to any one of Claims 1 to 7, characterized in that

- a) a chitosan derivative is selected according to the type and relative number of its charged groups and in coordination with the type and relative number of the charged groups of the active substance such that at a certain pH value an isoionic state or charge equalization between active substance and carrier can be achieved in the preparation,
- b) an aqueous sol containing the active substance is prepared from the chitosan derivative,
- c) the pH value of the aqueous sol is adjusted such that an isoionic state results, possibly with colloidal or nano-scale active substance particles precipitating, and
- d) the thus-adjusted aqueous sol is dried.